

SOLAR HAWK ENERGY

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Regarding the ACC Decision 71254, Docket Number E-01345A-09-0263

Solar Hawk Energy™ believes that the current decision has several errors of fact according to the data cited in this decision. The Company also believes that the Arizona Corporation Commission should add amendments to its decision 71254 to remedy these errors and to ensure a fair playing field for all companies (ratepayers) that are ultimately responsible for paying the APS Environmental Surcharge that funds the Arizona Renewable Energy Standard and Tariff.

1. Page 2, Lines 3-5, Findings of Fact #5.
 - a. "APS asserts that the increase in the cost recovery guarantee will not have any impact on the bills of APS' customers in 2009."
 - i. This is probably true, but what is the expected increase to ensure the recovery guarantee does not have a negative impact on APS' operations in 2010 and beyond? Meaning, the money must come from somewhere and must ultimately be paid by APS customers.
2. Table on Page 2, Lines 6-13, Findings of Fact #6

Production Based Incentive Cap Analysis – Projected Through the End of 2009				
Project Type	Number of Projects	kWdc ¹	Annual Incentive Impact	Lifetime Contract Commitment
Reserved & Installed ²	57	15,600	\$ 6,200,000	\$ 72,000,000
Received & Pending ³	16	14,500	\$ 3,800,000	\$ 55,000,000
In Development ⁴	5-10	12,000	\$ 4,000,000	\$ 63,000,000
Anticipated Based on Inquiries ⁵	5-15	6,000	\$ 2,000,000	\$ 30,000,000
Total	83-98	48,100	\$16,000,000	\$220,000,000

- a. Other relevant numbers in order to complete the math behind these numbers are:
 - i. APS has a current cap of \$77 million (Page 2, lines 15-16)
 - ii. "this analysis projects a total of 48.1 MegaWatts ("MW") of new PBI projects that could receive APS commitments by the end of 2009, if the Commission approves the new \$220 million recovery guarantee" Page 8, Lines 2-5
 - iii. "a total of 84,271,200 kWh will be produced each year from the new projects" Page 8, Line 7.

\$148 Million of projects (67.3% of all money requested) is determined in the footnotes

- a. New reservations through the April 30, 2008 nomination period (25%)
- b. APS has been involved in detailed project discussions with customers and developers (28.6%)
- c. Forecasted based on informational inquiries from customers or developers (13.6%)

Thus, the entirety of the APS renewable energy funds are spoken for with tentative projects ("Phantom Projects") that prevent other APS' ratepayers from purchasing solar energy assets for their facilities...this table insinuates that only 83-98 APS ratepayers will receive money for solar energy assets! This is not the intent of the commercial program anymore than it is for the residential program. The ethos of the REST by setting aside 30% of all REST funds for Distributed Energy projects is that this will help APS customers in the long-term by purchasing solar energy assets to offset their long-term energy costs and increase these companies' long-term competitiveness as Arizona-based companies.

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Let's Do the Math

- A. In order to reach the Lifetime Contract Commitment level requested by APS and given the fact cited above for annual kWh production (84,271,200) and APS' maximum PBI payment is \$0.25 per kWh, then the math follows $84,271,200 \times \$0.25 \times 10 \text{ years} = \$210,678,000$, which is below \$220,000,000!
- a) Thus, APS is paying more than its maximum incentive of \$0.25 per kWh for 10 years.
 - b) This shows APS is in fact paying an average of \$.261 per kWh over 10 years!
- B. If APS' figures for annual kWh production (84,271,200) for its proposed total MW installed capacity (48.1 MW), then the annual output per year must be 1,752 kWh/kW per year.
- a) HOWEVER, 84,271,200 kWh paid at an APS maximum incentive of \$0.25 per kWh for 10 years is an easy calculation. At \$0.25 per kWh for 84,271,200 kWh per year for 10 years is \$210,678,000, which is \$9.32 million less than ACC granted APS for commercial projects.
 - b) The 'Annual Incentive Impact' of \$16,000,000 averages into \$220,000,000 at a rate of \$0.1898 per kWh produced per year for 13.75 years
 - 1. Thus, APS is paying a larger percentage of these projects than even its greatest incentive level indicates...yet APS believes that in the future the Company must decrease this incentive level to allow more projects to compete for reservation monies.
 - 2. This has not been proven with the facts presented in this decision!
- C. If the 2009 cap is \$77 million and APS cannot grant any other reservations given that the next project in the reservation queue assumes more than \$5 million more than the current "projects [that] have been accepted and/or completed", then this project size would need to be at least $\$0.25 \times 10 \text{ years} \times 1200 \text{ kW} \times 1752 \text{ kWh/kW}$!
- a) Thus, a 1.2 MW project keeps smaller, shovel-ready jobs from going forward in this current year even if the ACC did not grant APS the additional funds. Additionally, APS contends that no other projects can be funded given the new allocation of \$148 million more money for projects! This destroys the commercial solar energy market in Arizona for solar energy developers!
- D. If APS contends that all the projects cited in this table prevent further reservations from being granted, then this REST program should change. APS cites "5-10" or "5-15" as the number of projects assuming \$93 million are 'In Development' and 'Anticipated Based on Inquiries' (\$93 million is 62.83% of the new \$148 million allocation approved by the ACC Decision 71254). The rest of the new allocation is slated for projects 'Received and Pending', which also seems misleading given no announcement in the state's public papers of the clients who signed these large contracts for systems averaging 800 kW DC.
- a) This kind of uncertainty should not be allowed by the ACC!



Other Findings Worthy of Investigation

1. Page 2, Lines 22-25 and Page 3, Lines 1-3: APS claims, “there is increased interest in PBI reservation requests from schools at the same time that residential distributed project interest is lagging.” MOREOVER, “APS proposes that school projects be classified as residential distributed energy projects, which would allow schools to receive up-front incentives [UFI] paid by REST funding that had been allocated for residential projects.”
 - a. In the space of 7 lines, APS contradicts its claims by stating that schools want PBI payments and then gives the schools UFI payments...why is this allowed?
 - b. Schools are not purchasing the solar energy plants directly, rather AZ schools are employing solar energy developers who offer PPAs (Power Purchase Agreements), which are popular with energy users that cannot use the US Federal Incentives (30% Tax Credit and Accelerated Depreciation)
 - c. It also disturbing that the ACC would grant this request to take place in the next four months in 2009.
 - i. Thus, this is a very flawed understanding of what schools want, who is ultimately benefiting from the UFI vs. PBI determination, and very misleading for every solar energy developer in Arizona but the one company that has lobbied APS to include this specific caveat in the ACC paperwork.
 - ii. The short time frame gives no notice to other commercial-scale solar energy developers to use the UFI benefit to sell solar energy assets to the broader commercial sector in Arizona.
2. Page 3, Line 14: APS believed that “\$77 million cap would be sufficient for systems in 2009”
 - a. How did APS so significantly underestimate the solar energy market potential; this is a grave miscalculation and demonstrates that APS is not requesting input from the solar energy companies in Arizona or something else really needs some explaining? IF APS miscalculated the energy demands for its customers with a similar estimation, then Arizona could rest assured there would be consistent rolling blackouts throughout the state.
3. Page 5, Lines 3-5: Staff believes “a total of 48.1 MegaWatts (“MW”) of new PBI projects could receive APS commitments by the end of 2009”
 - a. Solar Hawk Energy™ does not believe this is true...has the ACC Staff taken APS word on this as fact or has the Staff actually reviewed all of these proposed projects, which Solar Hawk Energy™ believes are mostly “Phantom Projects” obfuscating the entire renewable energy incentive program for commercial-scale solar plants.
4. Page 7, Lines 12-17: Staff believes “solar developers see the APS PV PBI incentive of 18-25 cents/kWh as a profit bonanza while the incentives are still high”
 - a. There is no bonanza of projects being installed in Arizona during 2009, which means that all these projects are slated for 2010...but is this really truth or fiction?
 - b. Solar Hawk Energy™ believes that APS has “Phantom Projects” assuming all of the REST monies as a means to prevent solar energy developers from going forward with shovel-ready projects by seemingly allocating all the available monies for 2 years or more. Will APS actually realize \$72 million of projects with PBI payments in 2009? That would mean APS realizes an installed capacity of more than 16 MW of solar energy this year alone...
 - i. $10 \text{ years} \times 16 \text{ MW} \times 1,752 \text{ kWh/year/kW} \times \$0.25 = \$70.08 \text{ million.}$



Solar Hawk Energy™ Conclusions:

1. APS has not been forthcoming enough to the ACC Staff in order to prove its data.
2. APS has obscured the UFI and PBI differentiation for the benefit of an insider lobbying effort to do so. It is unclear who is ultimately benefiting from this arrangement, but it certainly is NOT the Arizona solar energy industry or Arizona businesses aka APS ratepayers.
3. The ACC needs to revisit the APS REST implementation plan to ensure that ratepayers will be able to receive REST monies to install solar energy systems at more locations than the 83-98 cited.
 - a. As a matter of fact, a 200 kW solar energy system receiving a \$0.25 PBI for 10 years will cost at most \$800,000 and produce 1.6 million kWh over 10 years with an average output of 1600 kWh per kW DC installed.
 - b. A 200 kW solar energy system is the typical size of even large operations with average annual bills around \$35,000. Most rooftops cannot handle more solar energy than this.
 - c. APS projects, in its table cited on Page 2, that the average sizes of the projects in its pipeline are at least 1.1 MW per client. This is not the intent of the REST program to reward a few companies while leaving the majority of the ratepayers bereft of the ability to afford clean, green, renewable energy that will ultimately help their operations save money in the coming decades.
 - i. THUS, Solar Hawk Energy™ believes a cap of 500kW should be placed on all APS projects for a client in a given year...even if that client has multiple stores, factories, or buildings...the point is to distribute the energy funds and not lock all the money into a few projects benefiting only a modicum of APS ratepayers.
 - ii. Any project over 500kW should be considered a utility-scale project and paid as such from the REST funds allocated to this utility-scale sector. 70% of all REST money is for APS' utility-scale renewable energy power plants and/or to buy Renewable Energy Credits (RECs) on the open market.
4. APS should adopt a system like SRP's published PBI program (www.srpnet.com). This is a fair system with central features that benefit SRP ratepayers who decide to go solar. SRP ratepayers are ultimately affected by the SRP's Environmental Surcharge costs, which really is the same as the REST.
 - a. Every kWh produced is considered a kWh not charged to the customer. The value is for a full kWh and not a percentage of its cost to the ratepayer, as APS indicates is the case for buyers of solar energy systems. APS proposes it should recognize only 60%-70% of the actual cost of a kWh sold to its ratepayers as offset with a kWh produced by the distributed energy power plant.
 - b. The cap on the system size is 300 kW DC, which is a very large system for a significant energy user. This size prevents gaming of the system with "Phantom Projects" or just a few energy users to assume an overwhelming majority of SRP's renewable energy fund.
 - c. A first-come, first-serve strategy is imposed on all interested companies requesting funding for solar energy systems. **This means that a signed contract will be funded immediately and not put on hold because a "Phantom Project" is blocking the queue.**
 - i. THUS, Solar Hawk Energy™ believes that the auction system may be fine for utility-scale projects, but this strategy only serves to circumvent commercial-scale solar energy plants that are valid, shovel-ready projects from going forward. No customer of Solar Hawk Energy™ wants to wait in an innuendo for months in order to know if its project is fundable at the published incentive rates on the APS website.



- ii. APS and the ACC should be able to make better projections than they have done in the past to ensure the REST is met and the process is not muddled with an auction process that really only serves to tie up funds for the largest of projects with the largest economies-of-scale. This is not the intent of the REST as originally conceived with input from the solar energy community, which the owner and CEO of Solar Hawk Energy™, Charles Provine, actively participated in years ago.
 - iii. Solar Hawk Energy™ and other firms received very troubling information from APS at a meeting for solar energy developers on August 18, 2009. The APS representative explained that APS would institute a 6-month waiting period in 2010 between funding rounds for commercial-scale projects in order to ensure ratepayers got the most renewable energy for the best price. THIS is flawed, because it has not worked in the past with APS actually granting more than its maximum payout (\$0.25 per kWh for 10 years). THIS is also unfair to APS ratepayers who want a modest 100kW or 200kW solar power plant to effectively negate their current electric bills. Solar Hawk Energy™ has contacted many such companies that are interested, but unwilling to take the risk that APS will not fund their valid, shovel-ready projects and continue to secure their reservations in a holding pattern without hope for funding at an appropriate level stated in all ACC and APS documentation as to the published incentive rates!
5. How can the table on Page 2 be the total amount of data shared by APS? Should not the ACC Staff be privy to information that is more detailed in order to make this case than the obviously flawed data table on Page 2?